ISSN 0112-3361

BEEBLET

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Volume 7 Number 4 Aug 1989

BBC / ACORN

COMPUTER USER GROUP NZ (Inc)

EDITORIAL

A bit of a struggle, but we have finally completed this issue. Compound problems - slow receipt of contributions hasn't been helped by my having a few problems with the peripherals to the Beeb.

May I thank:

L Amon	Dunedin
John Andrew	Wellington (2)
Jane Cunningham	Tauranga
Ivan Gardner	Wellington
Richard Jack	Nelson
Don McDonald	Wellington

Without their assistance this issue would not have been possible.

The present rate of contributions being received is barely adequate to support quarterly issues of *Beeblet*. This is of real disappointment, since I am well aware that *Beeblet* forms the only link available to many users with others in New Zealand.

I would like to think we can manage at least two issues before Christmas, one being a December issue. I need to decide whether an issue can proceed about the middle of each month - hence the contribution deadline stated on the final page. So, realistically, try meeting the mid September deadline so we can finalise an October issue.

Of course, if more issues are possible, then they will happen!

In the meantime,

Happy Computing... Graham Ellett.

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The views of reviewers, contributors and/or Editorial committee are not necessarily shared by

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USING BASIC TO SET UP PRINTER MODES

by L. E. S. Amon, Dunedin.

It occasionally happens that I want to use some exotic mode of my printer, such as one of the foreign language character sets for which I have not provided in my current VIEW printer driver. This can easily be done with a short BASIC program which is run before entering VIEW. This method is only useful if the mode is to remain set until the reset command is issued to the printer, so it cannot be used for tasks like italicising the odd word.

The appropriate sequences can usually be found in the printer manual with short sample BASIC programs in an IBM-compatible dialect of BASIC. Most BBC-owners will have discovered for themselves that these examples do not work in BBC BASIC. The translation process is quite simple although it does not get the emphasis in the BBC manual that it perhaps deserves.

The printer manual examples use LPRINT CHR$(..); statements in the BASIC examples, and these should be translated to equivalent VDU 1,.. statements in BBC BASIC. e.g.: to set up my EP-1201 printer with the German character set, the printer manual example gives this statement:

```
LPRINT CHR$(27)+"R"+CHR$(2);
```

in BBC BASIC this translates to:

```
VDU 1,27,1,82,1,2 : REM <ESC> R <2>
```

Now you may enter VIEW and try PRINTing a file containing @[\]{¦}~, which should produce the German character set.

On the Master 128 it is possible to redefine the screen appearance of the characters with a short BASIC program. This is done on earlier BBC computers by "exploding" the font with a *FX 20,n command, but be warned that you will lose the use of some memory when you do this.

The following programs can be run from BASIC before entering the word processing program to redefine the screen appearance of the characters and set the appropriate mode on the printer. A <Control.Break> will restore the Master to normality, and VDU 1,27,1,64 will do the same to the printer.

The programs define all the characters used by any of the international character sets so that they can be used in any order without leaving any misleading effects. That is to say, what you see should be what you get. There may be some printers with different international characters and codes, but I believe that a degree of standardisation prevails in this area. Check your printer manual.

Enter each program as printed and listed below, and LIST it before running it. Notice the appearance of the character in the REM statements. Now RUN the program and LIST it again. Some of the characters in the REM statements will have changed to the special characters of the language required.

Neither the USA or ENGLAND character sets correspond exactly with the BBC keyboard and screen characters. The difference is in the treatment of the <shift.3> and <shift._> characters. After running any of these programs the screen appearance will be what you get on the printer rather than what appears on the key-top.

Alternatively, Master users will find a font design program amongst the programming utilities. Fonts created and saved with this utility can be loaded with a *RUN command, without the need to enter BASIC.

```
 10 REM USA
100 VDU 1,27,1,82,1,0
110 REM Model B users should use *FX 20,6
150 VDU 23,35,54,54,127,54,127,54,54,0:     REM #
200 VDU 23,36,12,63,104,62,11,126,24,0:     REM $
250 VDU 23,64,60,102,110,106,110,96,60,0:   REM @
300 VDU 23,91,124,96,96,96,96,96,124,0:     REM [
350 VDU 23,92,0,96,48,24,12,6,0,0:          REM \
400 VDU 23,93,62,6,6,6,6,6,62,0:            REM ]
450 VDU 23,94,24,60,102,66,0,0,0,0:         REM ^
500 VDU 23,96,48,24,12,0,0,0,0,0:           REM #
550 VDU 23,123,12,24,24,112,24,24,12,0:     REM {
600 VDU 23,124,24,24,24,0,24,24,24,0:       REM ¦
650 VDU 23,125,48,24,24,14,24,24,48,0:      REM }
700 VDU 23,126,49,107,70,0,0,0,0,0:         REM ~
```

```
 10 REM FRANCE
100 VDU 1,27,1,82,1,1
110 REM Model B users should use *FX 20,6
150 VDU 23,35,54,54,127,54,127,54,54,0:       REM #
200 VDU 23,36,12,63,104,62,11,126,24,0:       REM $
250 VDU 23,64,24,12,60,6,62,102,62,0:         REM @
300 VDU 23,91,60,102,60,0,0,0,0,0:            REM [
350 VDU 23,92,0,0,60,102,96,102,60,96:        REM \
400 VDU 23,93,60,96,124,102,62,6,60,0:        REM ]
450 VDU 23,94,24,60,102,66,0,0,0,0:           REM ^
500 VDU 23,96,48,24,12,0,0,0,0,0:             REM #
550 VDU 23,123,12,24,60,102,126,96,60,0:      REM {
600 VDU 23,124,24,12,102,102,102,102,62,0:    REM ¦
650 VDU 23,125,24,12,60,102,126,96,60,0:      REM }
700 VDU 23,126,102,0,0,0,0,0,0,0:             REM ~
```

```
 10 REM GERMANY
100 VDU 1,27,1,82,1,2
110 REM Model B users should use *FX 20,6
150 VDU 23,35,54,54,127,54,127,54,54,0:       REM #
200 VDU 23,36,12,63,104,62,11,126,24,0:       REM $
250 VDU 23,64,60,96,124,102,62,6,60,0:        REM @
300 VDU 23,91,102,24,60,102,126,102,102,0:    REM [
350 VDU 23,92,102,60,102,102,102,102,60,0:    REM \
400 VDU 23,93,102,0,102,102,102,102,60,0:     REM ]
450 VDU 23,94,24,60,102,66,0,0,0,0:           REM ^
500 VDU 23,96,48,24,12,0,0,0,0,0:             REM #
550 VDU 23,123,102,0,60,6,62,102,62,0:        REM {
600 VDU 23,124,102,0,60,102,102,102,60,0:     REM ¦
650 VDU 23,125,102,0,102,102,102,102,62,0:    REM }
700 VDU 23,126,0,60,102,108,102,108,96,0:     REM ~
```

```
 10 REM ENGLAND
100 VDU 1,27,1,82,1,3
110 REM Model B users should use *FX 20,6
150 VDU 23,35,28,54,48,124,48,48,126,0:       REM #
200 VDU 23,36,12,63,104,62,11,126,24,0:       REM $
250 VDU 23,64,60,102,110,106,110,96,60,0:     REM @
300 VDU 23,91,124,96,96,96,96,96,124,0:       REM [
350 VDU 23,92,0,96,48,24,12,6,0,0:            REM \
400 VDU 23,93,62,6,6,6,6,6,62,0:              REM ]
450 VDU 23,94,24,60,102,66,0,0,0,0:           REM ^
500 VDU 23,96,48,24,12,0,0,0,0,0:             REM #
550 VDU 23,123,12,24,24,112,24,24,12,0:       REM {
600 VDU 23,124,24,24,24,0,24,24,24,0:         REM ¦
650 VDU 23,125,48,24,24,14,24,24,48,0:        REM }
700 VDU 23,126,49,107,70,0,0,0,0,0:           REM ~
```

```
 10 REM DENMARK1
100 VDU 1,27,1,82,1,4
110 REM Model B users should use *FX 20,6
150 VDU 23,35,54,54,127,54,127,54,54,0:       REM #
200 VDU 23,36,12,63,104,62,11,126,24,0:       REM $
250 VDU 23,64,60,102,110,106,110,96,60,0:     REM @
300 VDU 23,91,63,102,102,127,102,102,103,0:   REM [
350 VDU 23,92,62,99,103,107,115,99,62,0:      REM \
400 VDU 23,93,60,102,60,102,126,102,102,0:    REM ]
450 VDU 23,94,24,60,102,66,0,0,0,0:           REM ^
500 VDU 23,96,48,24,12,0,0,0,0,0:             REM #
550 VDU 23,123,0,0,63,13,63,108,63,0:         REM {
600 VDU 23,124,0,0,62,103,107,115,62,0:       REM !
650 VDU 23,125,60,102,60,6,62,102,62,0:       REM }
700 VDU 23,126,49,107,70,0,0,0,0,0:           REM ~
```

```
 10 REM SWEDEN
100 VDU 1,27,1,82,1,5
110 REM Model B users should use *FX 20,6
150 VDU 23,35,54,54,127,54,127,54,54,0:       REM #
200 VDU 23,36,0,102,60,102,102,60,102,0:      REM $
250 VDU 23,64,12,24,126,96,126,96,126,0:      REM @
300 VDU 23,91,102,24,60,102,126,102,102,0:    REM [
350 VDU 23,92,102,60,102,102,102,102,60,0:    REM \
400 VDU 23,93,60,102,60,102,126,102,102,0:    REM ]
450 VDU 23,94,102,0,102,102,102,102,60,0:     REM ^
500 VDU 23,96,12,24,60,102,126,96,60,0:       REM #
550 VDU 23,123,102,0,60,6,62,102,62,0:        REM {
600 VDU 23,124,102,0,60,102,102,102,60,0:     REM !
650 VDU 23,125,60,102,60,6,62,102,62,0:       REM }
700 VDU 23,126,102,0,102,102,102,102,62,0:    REM ~
```

```
 10 REM ITALY
100 VDU 1,27,1,82,1,6
110 REM Model B users should use *FX 20,6
150 VDU 23,35,54,54,127,54,127,54,54,0:       REM #
200 VDU 23,36,12,63,104,62,11,126,24,0:       REM $
250 VDU 23,64,60,102,110,106,110,96,60,0:     REM @
300 VDU 23,91,60,102,60,0,0,0,0,0:            REM [
350 VDU 23,92,0,96,48,24,12,6,0,0:            REM \
400 VDU 23,93,12,24,60,102,126,96,60,0:       REM ]
450 VDU 23,94,24,60,102,66,0,0,0,0:           REM ^
500 VDU 23,96,24,12,102,102,102,102,62,0:     REM #
550 VDU 23,123,24,12,60,6,62,102,62,0:        REM {
600 VDU 23,124,24,12,60,102,102,102,60,0:     REM !
650 VDU 23,125,24,12,60,102,126,96,60,0:      REM }
700 VDU 23,126,24,12,0,28,12,12,30,0:         REM ~
```

```
 10 REM SPAIN
100 VDU 1,27,1,82,1,7
110 REM Model B users should use *FX 20,6
150 VDU 23,35,112,106,111,114,98,98,99,0:    REM #
200 VDU 23,36,12,63,104,62,11,126,24,0:      REM $
250 VDU 23,64,60,102,110,106,110,96,60,0:    REM @
300 VDU 23,91,24,0,24,24,24,24,24,0:         REM [
350 VDU 23,92,54,108,0,102,118,110,102,0:    REM \
400 VDU 23,93,24,0,24,24,48,102,60,0:        REM ]
450 VDU 23,94,24,60,102,66,0,0,0,0:          REM ^
500 VDU 23,96,48,24,12,0,0,0,0,0:            REM #
550 VDU 23,123,102,0,0,0,0,0,0,0:            REM {
600 VDU 23,124,54,108,0,124,102,102,102,0:   REM ¦
650 VDU 23,125,48,24,24,14,24,24,48,0:       REM }
700 VDU 23,126,49,107,70,0,0,0,0,0:          REM ~
```

```
 10 REM JAPAN
100 VDU 1,27,1,82,1,8
110 REM Model B users should use *FX 20,6
150 VDU 23,35,54,54,127,54,127,54,54,0:      REM #
200 VDU 23,36,12,63,104,62,11,126,24,0:      REM $
250 VDU 23,64,60,102,110,106,110,96,60,0:    REM @
300 VDU 23,91,124,96,96,96,96,96,124,0:      REM [
350 VDU 23,92,102,102,36,126,24,126,24,0:    REM \
400 VDU 23,93,62,6,6,6,6,6,62,0:             REM ]
450 VDU 23,94,24,60,102,66,0,0,0,0:          REM ^
500 VDU 23,96,48,24,12,0,0,0,0,0:            REM #
550 VDU 23,123,12,24,24,112,24,24,12,0:      REM {
600 VDU 23,124,24,24,24,0,24,24,24,0:        REM ¦
650 VDU 23,125,48,24,24,14,24,24,48,0:       REM }
700 VDU 23,126,49,107,70,0,0,0,0,0:          REM ~
```

```
 10 REM NORWAY
100 VDU 1,27,1,82,1,9
110 REM Model B users should use *FX 20,6
150 VDU 23,35,54,54,127,54,127,54,54,0:      REM #
200 VDU 23,36,0,102,60,102,102,60,102,0:     REM $
250 VDU 23,64,12,24,126,96,126,96,126,0:     REM @
300 VDU 23,91,63,102,102,127,102,102,103,0:  REM [
350 VDU 23,92,62,99,103,107,115,99,62,0:     REM \
400 VDU 23,93,60,102,60,102,126,102,102,0:   REM ]
450 VDU 23,94,102,0,102,102,102,102,60,0:    REM ^
500 VDU 23,96,12,24,60,102,126,96,60,0:      REM #
550 VDU 23,123,0,0,63,13,63,108,63,0:        REM {
600 VDU 23,124,0,0,62,103,107,115,62,0:      REM ¦
650 VDU 23,125,60,102,60,6,62,102,62,0:      REM }
700 VDU 23,126,102,0,102,102,102,102,62,0:   REM ~
```

```
 10 REM DENMARK2
100 VDU 1,27,1,82,1,10
110 REM Model B users should use *FX 20,6
150 VDU 23,35,54,54,127,54,127,54,54,0:     REM #
200 VDU 23,36,12,63,104,62,11,126,24,0:     REM $
250 VDU 23,64,12,24,126,96,126,96,126,0:    REM @
300 VDU 23,91,63,102,102,127,102,102,103,0: REM [
350 VDU 23,92,62,99,103,107,115,99,62,0:    REM \
400 VDU 23,93,60,102,60,102,126,102,102,0:  REM ]
450 VDU 23,94,102,0,102,102,102,102,60,0:   REM ^
500 VDU 23,96,12,24,60,102,126,96,60,0:     REM #
550 VDU 23,123,0,0,63,13,63,108,63,0:       REM {
600 VDU 23,124,0,0,62,103,107,115,62,0:     REM ¦
650 VDU 23,125,60,102,60,6,62,102,62,0:     REM }
700 VDU 23,126,102,0,102,102,102,102,62,0:  REM ~
```

Ed: It wasn't my intention to publish all the programs even though they have been compressed somewhat from that originally supplied. However, there has been no shortage of space, so they are all here. I can assure readers that nothing was left out to ensure room was available.

Just remember my standing offer to supply compies of programs published in *Beeblet* when returning discs or tapes to contributors to the magazine. So instead of typing in the programs you find in the magazine, send in your own efforts and we will arrange a swop!

Letter from

June 1989

NELSON

Dear Ed,

Many thanks for keeping Beeblet going. My apologies for the lack of input from the Nelson people. As a group, it has become non-existent, key members have moved away and I believe I am probably the only member left in Nelson. However there are still a number of working Beebs here excluding the school machines. I am in contact with a number of owners from time to time and we are able to provide each other with support.

I have just heard that Barsons have appointed an agent/adviser in the area. He is Mike Rose, Nelson 36367.

FOR SALE

Watford Shadow RAM Board Mk.2 Works perfectly ,includes controller rom and manual. Offers to (054)48489 Richmond or Richard, 5 Wilkes Street, Richmond.

HELP WANTED

One of our contacts has bought a Watford 30mb hard drive. Watford are out of manuals and our member would grovel for info on "cranking it up!" Has anyone any comment to make or experience to offer on trying to fit these nice cheap hard drives available for other machines to run with Beebs?

Do you know of a Japanese Language program or character set available for Beeb?

Can anyone explain how the Volksmoden can cause the 6522 chip to 'blow'?

I regret that at the present time I don't have anything that I consider suitable for or of interest to other members.

Sincerely
Richard Jack

Editor:

Thanks for your letter, Richard. Can any of our readers assist. Seems to me that there are some ideas for Beeblet articles here.

I believe one of the most important reasons for Beeblet continuing is to provide contact between users who would otherwise be isolated because of a lack of local User groups. However, it is becoming increasingly important that such members must vote with their Beebs - by using Beeblet to share with others what they are doing.

We know that a member has been involved in setting up Chinese using a Beeb; Anyone had a go at Japanese?

Don't leave it to others to advise the answers to Richard's questions - drop me a line. Let me worry how I'll handle two or more replies to the one question. That's the sort of problem I like to have, and it doesn't occur often enough.

Slingshot Whirligig Orbits of a Globular Cluster of Stars

by Don S. McDonald, Wellington.

Gravitation is the universal force of attraction existing between all particles of matter. E.g. the apple is attracted to the [centre of the] Earth and *vice versa*. The Moon and Earth are mutually attracted to each other. The Earth and Sun are attracted. Even the ink dots on this page are weakly attracted to a star in the Andromeda galaxy.

Newton's Law of Gravity, 1687, states that the force of attraction between two masses M and m, a distance r apart, is:

F = GMm/r^2.

where G is the constant of gravitation.

The Law of Gravitation explains why the orbits of planets are ellipses (some nearly circular), the orbits of comets may be ellipses, parabolae, of hyperbolae. J. Kepler's three laws 1609, 1619, govern the motions of the planets around the Sun.

A globular cluster of stars is a symmetrical system, which may contain up to a million stars, strongly concentrated towards the centre. E.g. Omega Centauri.

BBC-B BASIC programme STARCLU, following, starts by distributing 25 one solar mass stars uniformly throughout a unit cube, and giving each star a small kick. It then follows the courses of the stars as they interact gravitationally.

Two stars which may pass close together may disturb each other's course. The result of many stars interacting in 3-Dimensional space is some whirligig "orbits".

Take star 1. The co-ordinates of each star: 2, 3, 4, .., 25 are calculated, the distance, the force, and the components of force in 3D, and the total resultant force. Acceleration is related to force by the formula :

F = mass x acceleration, and mass equals 1 solar mass.

The new velocity component of star 1 is:

V = initial velocity + acceleration x time,

and we assume that the time increment is 1 year, etc.

The new position co-ordinate (X,Y,Z) of star 1 is:

S = init. pos. + velocity x time + .5 x accel x time^2

where init. pos. is initial position and, again, time = 1.

The new positions of stars 1 ... 25 are calculated based on old position, velocity, and acceleration, and then all the motions are plotted in 7 colours.

The program takes 50 seconds to calculate new positions for 25 stars. The number of stars in the program, I1, can be amended. Compute RUN time should be proportional to I1^2. If you have a disc drive, the screen memory may be saved by *SAVE picture 3000 8000. To reload - MODE 2, *LOAD PICTURE.

A few experiments with the program STARCLU shows that stars tend to be ejected from the system. This "evaporation" process is seen in the sky by the central condensation of globular clusters and radiation of stars outwards from the centre. Stars probably attain the velocity of escape to leave the globular cluster system.

The gravitation constant in the program may require to be adjusted for the number of stars, I1. The display shows RMS acceleration of the stars at each iteration. This is the Square Root of the Mean Square of acceleration. When stars are in close quarters, their respective accelerations are greater. This is shown by rapid changes in direction.

The program continue indefinitely. Press Escape to STOP.

Incidentally, the gravitational influence of the outer planets in our Solar system was used by Voyager 2 spacecraft in its slingshot Grand Tour to Jupiter, Saturn, Uranus and Neptune in 1980/89.

The program, STARCLU, appears on the next page....

```
 10 MODE7
 20 PRINT"PROG STARCLU"'''
    "MONTECARLO SIMULATION OF DYNAMICS OF A  GLOBULAR STAR
    CLUSTER,"''"BY D MCDONALD, WELLINGTON, N.Z., 18.5.89"
 30 INPUT"ENTER RANDOM NO. 2 - 178M";X
 40 Y=LNINTX
 50 Y=RND(-21E8*(Y-INTY))
 60 INPUT"GRAVIT.-ACCELN CONSTANT 1E-4",G
 70 MODE2
 80 I1=25:REM NO. OF 1 SOLAR MASS STARS
 90 DIMS(9,I1),X(3)
100 PRINT"SEED ";Y
110 PRINT"RMS ACCEL I1=";I1''"x.001     G=";G
120 ON ERROR GOTO140
130 GOTO160
140 PRINTTAB(0,28);"*SAVE <SCREEN> 3000 8000"
150 END
160 V=.12
170 FIVE=512
180 FORI=1TOI1
190 S(0,I)=I MOD 7+1      :REM COLOUR
200 S(1,I)=RND(1)         :REM X,Y,Z POSITION COORDS
210 S(2,I)=RND(1)
220 S(3,I)=RND(1)
230 S(4,I)=(RND(1)-.5)*V  :REM X,Y,Z VELOCITY COMPONENTS
240 S(5,I)=(RND(1)-.5)*V
250 S(6,I)=(RND(1)-.5)*V
260 NEXTI
270 REPEAT
280 T=0                   :REM SUM ACCELERATION SQUARED
290 FORI=1TOI1
300 XI=S(1,I)
310 YI=S(2,I)
320 ZI=S(3,I)
330 X(1)=0
340 X(2)=0
350 X(3)=0
360 REM G/R^3,  ACCEL COMPONENTS
370 FORJ=1TOI1
380 IFI=J THEN 430
390 W=((S(1,J)-XI)^2+(S(2,J)-YI)^2+(S(3,J)-ZI)^2+1E-4)^1.5
395 D=G/W
400 X(1)=X(1)+(S(1,J)-XI)*D
410 X(2)=X(2)+(S(2,J)-YI)*D
420 X(3)=X(3)+(S(3,J)-ZI)*D
430 NEXTJ
```

....STARCLU Contd >>>

....STARCLU Contd >>>

```
440 T=T+(X(1)^2+X(2)^2+X(3)^2)
450 S(7,I)=S(1,I)+S(4,I)+.5*X(1)
460 S(8,I)=S(2,I)+S(5,I)+.5*X(2)
470 S(9,I)=S(3,I)+S(6,I)+.5*X(3) :REM DEPTH
480 S(4,I)=S(4,I)+X(1)    :REM V=U+ACCELN
490 S(5,I)=S(5,I)+X(2)
500 S(6,I)=S(6,I)+X(3)
510 IFI-I1>-3THENVDU7
520 NEXTI
530 VDU7
540 PRINTTAB(0);INT(1000*SQR(T/I1)+.5);
550 PROCMOTION
560 UNTILFALSE
570 DEF PROCMOTION
580 FORI=1TO I1
590 GCOL 0,S(0,I)
600 MOVE(S(1,I)-.5)*FIVE+640,(S(2,I)-.5)*FIVE+500
610 DRAW(S(7,I)-.5)*FIVE+640,(S(8,I)-.5)*FIVE+500
620 S(1,I)=S(7,I):S(2,I)=S(8,I):S(3,I)=S(9,I)
630 NEXTI
640 ENDPROC
```

SHIFTING THE SHIFT KEYS

by John Andrew, Wellington

Just a reminder that :

*FX225,0 stops the function keys being used for strings
*FX225,1 allows them to be used for string use otherwise
*FX225,<n> produces an ASCII value of n+f<key>.

Using *FX226 (etc) has the same effect with <SHIFT> + f<key>.

Using *FX227 (etc) operates on <CTRL> + f<key> and

Using *FX228 (etc) operates on <SHIFT> +<CTRL> + f<key>.

FORMATTING TEXT ON SCREEN

by Jane Cunningham, Tauranga.

Ed: How do you deal with a contribution which is just a program (or a series of programs) with no words describing what it is all about? It was easy for me to see what they were all about - all I had to do was run them!

In this case there were three programs, basically (use that word with care) two procedures, one called PROCformat7 and the other PROCformat. One program illustrates one procedure, the second illustrates the other and the third program does both.

So the answer was simple - supply readers with the third program. Really, most of the explanation is in the program's PRINT statements and so its up to you as to how you use the ideas.

So here is FORMAT:

```
 10 REM "FORMAT" TEXT FORMAT DEMO - ALL MODES
 20 REM PROCformat7 for Mode 7 only and PROCformat for all
    other Modes
 30 REM J CUNNINGHAM TAURANGA
 40 MODE7:PROCheader:PRINT'
 50 PROCformat7(" These procedures prevent long text
    strings from being split awkwardly onto 2 or more
    lines. However, as you can see, they do not right
    justify.",39,0,131)
 60 PRINT'
 70 PROCformat7(" We are at present working in MODE 7, and
    the name of the procedure used is (surprise, surprise)
    PROCformat7.",30,3,134)
 80 PRINT'
 90 PROCformat7(" The parameters are: text$, len%=maximum
    line length required, x%=starting position,
    col%=colour number.",26,5,130)
100 PROCspace(6,24)
110 PROCheader:PRINT'
120 PROCformat7(" You can put text anywhere",15,0,130)
130 PRINT'
140 PROCformat7("you like on the screen by
    varying",10,16,129)
```

... *FORMAT* Contd >>

... *FORMAT* Contd >>>

```
150 PRINT
160 PROCformat7("the values of parameters len% and
    x%.",10,27,134)
170 PROCspace(6,24)
180 PROCheader:PRINT
190 PROCformat7(" Of course if you want to dive down to
    the bottom of the screen like-",30,4,131)
200 VDU31,0,16
210 PROCformat7("-this,  precede the PROC call with
    VDU31,x%,y% instead of PRINT' to start the cursor on
    the right line.",20,20,130)
220 PROCspace(6,24)
230 MODE1
240 COLOUR1:PRINT'
250 PROCformat(" We have now gone into MODE 1, using
    PROCformat instead of PROCformat7.",39,0,1)
260 COLOUR2:VDU31,0,15
270 PROCformat(" The parameters are - text$, len%=maximum
    line length required, x%=starting position, mo%=mode
    you are in.",26,5,1)
280 COLOUR3:PRINTTAB(7,28)"Press SPACE to continue";:
    REPEAT:G=GET:UNTILG=32
290 MODE2
300 COLOUR5:VDU31,0,8
310 PROCformat(" We are still using PROCformat, but we are
    now in Mode 2.",15,2,2)
320 COLOUR7:
    PRINTTAB(3,27)"Press SPACE to"'TAB(4)"start again";
330 REPEAT:G=GET:UNTILG=32
340 RUN
350 END
360
370 DEFPROCbig(M$,X%,Y%,col%):FORL%=Y%TOY%+1:
    PRINTTAB(X%-2,L%)CHR$141CHR$col%M$:NEXT:ENDPROC
380
390 DEFPROCheader
400 PROCbig("FORMAT PROCEDURES",10,1,134)
410 ENDPROC
420
430 DEFPROCspace(X%,Y%)
440 PRINTTAB(X%,Y%)CHR$131"Press SPACE to continue";
450 REPEAT:G=GET:UNTIL G=32
460 CLS
470 ENDPROC
```

... *FORMAT* Contd >>>

... *FORMAT* Contd >>>

```
480
490
500
510 DEFPROCformat(text$,len%,x%,mo%)
520 IF mo%=0 OR mo%=3 mo%=80 ELSE IF mo%=2 OR mo%=5 mo%=20
    ELSE mo%=40
530 IF len%+x%>mo% len%=mo%-x%
540 oldlen%=0
550 REPEAT
560 lenpart%=len%
570 REPEAT
580 part$=LEFT$(text$,lenpart%)
590 check$=MID$(text$,LEN(part$)+1,1)
600 lenpart%=lenpart%-1
610 UNTIL check$=" "
620 IF oldlen%+x%=mo% VDU11
630 PRINTTAB(x%)part$
640 oldlen%=LEN(part$)
650 text$=RIGHT$(text$,LEN(text$)-LEN(part$)-1)
660 UNTIL LEN(text$)<=len%
670 IF oldlen%+x%=mo% VDU11
680 PRINTTAB(x%)text$
690 ENDPROC
700
710 DEFPROCformat7(text$,len%,x%,col%)
720 IF len%+x%>39 len%=39-x%
730 oldlen%=0
740 REPEAT
750 lenpart%=len%
760 REPEAT
770 part$=LEFT$(text$,lenpart%)
780 check$=MID$(text$,LEN(part$)+1,1)
790 lenpart%=lenpart%-1
800 UNTIL check$=" "
810 IF oldlen%+x%=39 VDU11
820 PRINTTAB(x%)CHR$(col%)part$
830 oldlen%=LEN(part$)
840 text$=RIGHT$(text$,LEN(text$)-LEN(part$)-1)
850 UNTIL LEN(text$)<=len%
860 IF oldlen%+x%=39 VDU11
870 PRINTTAB(x%)CHR$(col%)text$
880 ENDPROC
```

Printer Control Codes for the Panasonic KX-P1091 Printer

by Ivan Gardner, Wellington.

This program, although rather trivial, has its uses in supplementing the rather meagre options available using the printer's switches, and, hopefully, may provide an introduction for anyone who wants to get into controlling the printer from the computer. It may work for other makes and models of printer, but then that is for you to find out!

Type in and save the following program. Give it whatever name you like - I called it "PC" to save typing extra letters when loading it.

```
 10 REM     PRINTER CONTROL PROGRAM
 20 REM  By Ivan Gardiner : April 1989
 30 REM     Written on an ELECTRON
 40 REM For use with Panasonic KX-P1091
 50 REM  =============================
 60 REM SET UP MENU
 70 CLS
 80 PRINTTAB(10,3)"Printer Control"
 90 PRINTTAB(10,4)"==============="
100 PRINTTAB(6,6)"1. Reset Printer"
110 PRINTTAB(6,7)"2. Set Expanded Print"
120 PRINTTAB(6,8)"3. Set Compressed Print"
130 PRINTTAB(6,9)"4. Set Emphasised Printing"
140 PRINTTAB(6,10)"5. Set N.L.Q. Printing"
150 PRINTTAB(6,11)"6. Set Italic Printing"
160 PRINTTAB(6,12)"7. Set Underlined Printing"
170 PRINTTAB(6,13)"8. Exit"
180 REM
190 REM =============================
200 INPUTTAB(20,20),SEL%
210 REM*
220 REM Direct Output to Printer Only
230 REM =============================
240 *FX3,10
250 IF SEL%=1PROCclear
260 IF SEL%=2PROCexpand
```

.... *Printer Control*: Contd >>>

.... Printer Control: Contd >>>

```
270 IF SEL%=3PROCcompress
280 IF SEL%=4PROCemphasise
290 IF SEL%=5PROCNLQ
300 IF SEL%=6PROCitalic
310 IF SEL%=7PROCuline
320 *FX3,0
330 IF SEL%=8GOTO350
340 GOTO190
350 END
360 REM*
370 REM* =============================
380 DEFPROCclear
390 REM Resets Printer, ie returns the
400 REM printer to the "just switched
410 REM on state...
420 VDU27,64
430 ENDPROC
440 REM*
450 REM* =============================
460 DEFPROCexpand
470 VDU27,87,1
480 ENDPROC
490 REM
500 REM* =============================
510 DEFPROCcompress
520 VDU15
530 ENDPROC
540 REM
550 REM* =============================
560 DEFPROCemphasise
570 VDU27,69
580 ENDPROC
590 REM
600 REM* =============================
610 DEFPROCNLQ
620 VDU27,110
630 ENDPROC
640 REM
650 REM* =============================
660 DEFPROCitalic
670 VDU27,52
680 ENDPROC
690 REM
700 REM* =============================
710 DEFPROCuline
720 VDU27,45,1
730 ENDPROC
```

Option 1 causes the printer head to do a little shuffle, but there is no immediate response from any of the others. Option 1 clears any settings and return the the printer to the normal draft mode, as though it has only just been switched on.

You can set multiple options, for example, you could set the printer for expanded, emphasized italic print by entering:

2 <CR> 4 <CR> 6 <CR> 8 <CR>

However, not all combinations are possible. Refer to page 4-57 of the Printer Manual.

We are told that VDU and PRINT CHR$ ar the same, but in my hours of experimentation (more than I care to admit) I found, in some cases, that the PRINT CHR$ version failed to do anything.

SPECIAL MESSAGE

FOR

ELECTRON USERS

In sending in his contribution, Ivan Gardner made a special request for programs and articles especially for the ELECTRON.

I would like to satisfy his request - all I need is for some of you using ELECTRONs to tell me what you are doing. Don't assume that no-one is interested - you would be surprised.

If you need help to prepare your contribution, please ask.

BBC/ACORN COMPUTER USER GROUP NZ (Inc)

Notes to the Financial Statement

1. GENERAL ACCOUNTING PRINCIPLES: The general principles recommended by the New Zealand Society of Accountants for the measurement and reporting of results on a historical basis have been followed.

2. CHANGES IN ACCOUNTING POLICY: Subscriptions are now recorded on a cash basis - a prior year adjustment has been made in the attached accounts for $1458.

3. ACCOUNTS PAYABLE: An amount of $1033 in the Accounts payable in the previous year's accounts does not now require payment and has been shown as a prior year adjustment.

4. DEPRECIATION: Depreciation has been written off Fixed Assets at the rates approved by the Inland revenue Department. Computer software has been written down to a realistic value.

AUDITOR'S COMMENTS:

We have examined the books and records of the BBC/Acorn Computer User Group NZ Inc. for the twelve months ending 31 December 1988 and have obtained all the information and explanations that we required.

In common with other organisations of this nature, it has not been feasible for us to audit income prior to the point of banking and accordingly our audit examination has been restricted in this area.

Subject to the foregoing, in our opinion the attached Balance Sheet and Revenue Statements, together with the Statement of Accounting Policies, fairly reflect respectively the state of affairs of the Group as at 31st December 1988, and the results of its activities for the year ended that date.

Coopers and Lybrand
Chartered Accountants
24 February 1989

BBC/ACORN COMPUTER USER GROUP NZ (Inc)

INCOME AND EXPENDITURE

FOR THE YEAR ENDED 31 DECEMBER 1988

INCOME

1987 $		1988 $	1988 $
5834	Subscription	2971	
788	Interest	853	
686	Sales	0	
7308			3824

EXPENDITURE

1987 $		1988 $	1988 $
	Accounting and audit fees	400	
	Loss on Sale Equipment Divn	54	
5200	Printer	3843	
1084	Postage	715	
1720	Editorial	1300	
739	Administration	276	
259	Depreciation	399	
9002			6987
-1694	Surplus income over expenses		-3163

BBC/ACORN COMPUTER USER GROUP NZ (Inc)

BALANCE SHEET

AS AT 31 DECEMBER 1988

31.12.87			31.12.88	
$			$	$
	Members Funds			
10059	Accumulated funds at 31.12.87		7683	
	Prior year adjustment		2491	
-1694	Surplus for year		-3163	
-682	Magazine stock write off		0	
7683	ACCUMULATED FUNDS AT 31.12.88			7011
Represented by:				
$		$	$	$
	Cash Assets			
2965	Cash at bank	2255		
2000	Investment, at call	5017		
100	Postage Float	100		
4154	Equipment Division	0		
270	Debtors	0		
			7372	
	Fixed Assets			
197	Paper Trimmer	158		
110	2 Modems	88		
165	Interword	20		
213	Viewstore	20		
			286	
10174	TOTAL ASSETS		7658	
Less:				
	Current Liabilities			
1033	Accounts payable	647		
1458	Subs in Advance	0		
			647	
7683	NET WORKING CAPITAL			7011

SETTING UP *ViewSpell*

by F J Andrew, Wellington.

The following routine sets up disc drives as follows:

DRIVE 0 for normal WORDWISE text files,
DRIVE 1 for USER dictionaries, and
DRIVE 3 for the MASTER ViewSpell spelling dictionary.

Setup a file named START with the *BUILD command:

```
*DRIVE 0
*BUILD START   (Note line numbers will appear)
  *SPELL
  PREFIX M :3.
  PREFIX U :1.
  PREFIX T :0.
  USER   User
  LOAD TEMP1
  CHECK
               (A blank line required here)
  MARK TEMP2
  *W.
  (Press Escape)
```

The text to be checked should be saved as a spooled file called TEMP1. When the command *EXEC START (Return) is entered from the keyboard, the routine will automatically check the (spooled) text file, TEMP1, and save a 'marked' file in TEMP2 before re-entering WORDWISE.

The TEMP2 file can then be loaded into WORDWISE to check for suspect spelling.

****

MEMBERSHIP

Membership of the National User Group is on payment of an annual subscription from April to March, which is $20.00 for the 1989/90 year. A local branch levy may be payable which entitles attendance at meetings as detailed on the back page. Joining or renewing members get all the back issues of *Beeblet* for the current year - those joining after 1 October may have half the annual subscription waived and only receive *Beeblet* from 1 October.

USER GROUP MEETINGS

AUCKLAND: -2nd and 3rd Wednesday of each month at Social Club, Auckland Hospital, Grafton Road at 7.30pm. Contact Theo Olifiers (Secy), phone 478-2153; Tony Krzyzewski (Pres), phone 267-2786.

North Shore: -last Wednesday of the month, 7.30pm, Salvation Army Hall, Glenfield Road, Glenfield. Contact: Chris, Phone 419-0543 (wk).

CHRISTCHURCH: -fortnightly workshops, Monday 6.30pm at Hagley High School. phone Michael 582-267.

DUNEDIN: -first Thursday of the month. Contact: Martin McDowall, Phone 42-031

HAWKES BAY: -2nd Sunday 2.30pm, Taradale Primary School. Contact Ron: 444-970, John: 445-729 (librarian), Major: 447-729, Mitch: 85-395.

INVERCARGILL: -Southland Education Centre, 70 Doon St. Contact Bob Evans, 73-050 or Lyndon McEntee (020) 87-365.

NELSON: -Contact: Mike Rose: 36387 or Richard: 48489.

PALMERSTON NORTH: -Phone Brian Knowles 79-319.

ROTORUA: -first Tuesday of month, Science Lab at Rotorua Girls High School. Phone: Ian 85-583, Joan 81-536 Tony 89-316.

TAUPO: -every second Wednesday, 7.00pm. Contact: David 84-215 (h), 85-124 (wk).

TAURANGA: -Contact: Chris and Jane 65-076.

TIMARU: -Phone Lloyd van der Krogt Timaru 61-412.

TOKOROA: -1st Friday of month, 7.30pm, Tokoroa High School. Contacts: Don Fraser, 68-813 or Graeme Robertson, 65-346 Tokoroa.

WAIKATO: -first Monday of the month, 7.30pm, Waikato Tech Institute. Ph. Alison or John, Morrinsville 6695.

WELLINGTON: -usually second Wednesday, 7.30pm, Royal Society Lecture Theatre, Turnbull St, Thorndon.
-Workshops: fourth Tuesday of month, other details: ph. Don 848-235 or Mike 785-437.

OTHER CENTRES: -let us know and we will publish details here.

BEEBLET

PUBLISHED: monthly except January and mailed to financial members.

CONTRIBUTIONS: -most welcome. Listings should be sent in on tape or disc. (Tape - 2 copies, one at 300 baud please). Please include written explanation of listing; text and graphics only material welcome too.

DEADLINES: -For a particular issue, the last day for material is the fifteenth day of the month prior to publication.

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APPLICATION FOR NEW OR RENEWED MEMBERSHIP 1989/90

Initials & Surname: ______________________

Preferred name: ______________________

Address: ______________________
____
____

STD & phone (home) ______________________

STD & phone.(work) ______________________

Postal zone code: ______________________

Programmer:(Beginner)(Intermediate)(Expert)

Computer model: ______________________

Occupation: ______________________

Computer interests: ______________________

Assistance you could offer: eg. technical help, articles, local contact:
____

Enclosed: ($20) ($10) Signed: ______________________ Date: ____/____/____

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

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Back issues	Update	Receipt no.	Membership no.
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BEEBLET

BBC/ACORN COMPUTER USER GROUP NZ INC.

PO Box 9592, Wellington, New Zealand

The BBC/ACORN Computer user group is an enthusiastic national group of computer users who believe that their machines are among the most versatile available. The BBC/Acorn microcomputer range is also one of the three most commonly used in schools.

USER GROUP AIMS

1 To provide a New Zealand forum for the exchange of information, ideas, experience and expertise.
2 To assist computer users, whether beginners or more experienced, to take advantage of the powerful capabilities of their machines.
3 To help groups with common interest to exchange views.
4 To provide a pool of knowledge to help solve members problems.
5 To produce the monthly magazine *Beeblet* to circulate information to the members.
6 To provide other services as the committee sees the need.

MEMBERSHIP

The membership fee for the year 1 April 1989 - 31 March 1990 is $20.00. After 1 October 1989 a half-year subscription ($10.00) may be paid. New and renewing members receive all issues of *Beeblet* for their current membership term. New members are sent a copy of the Constitution.

If you would like to become a member of the national User Group, fill in the application form below and mail it to PO Box 9592, Wellington.